

## ALTERNATIVE GROWING MEDIA AND NUTRIENT SOURCES TO RAISE TURMERIC (*Curcuma longa* L.) SEEDLINGS IN GROW BAGS

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Turmeric is a spice crop traditionally propagated by seed rhizomes. Import restrictions placed by the government of Sri Lanka have gained an interest in planting turmeric, thus increasing the demand for seed rhizomes. Since, grow bag turmeric seedlings can lower the seed rhizome requirement, present research identified the combined effect of organic and inorganic nutrient sources and growing media on the growth of turmeric seedlings in grow bags. Six treatments with three replicates were laid out in CRD under a shade house. Recommended potting media consisted of topsoil:sand:cow dung in 3:1:1 (T1) was compared with potting media comprised of only topsoil as the control (T2) and topsoil: sand in 3:1 ratio mixed with one part of TSP:Urea:MOP (T3), fish-based organic fertilizer (T4), Albert solution (T5) and *YaraMila* complex (T6). Growth parameters; plant height, number of leaves, fresh and dry weight of leaves, average leaf area, fresh and dry weight of newly formed rhizome and 50% sprouting were measured in two-weeks intervals after fertilization. Data were analysed using ANOVA and means were separated by LSD using R statistical software. Results revealed that plant height, number of leaves per plant, fresh and dry weight of leaves, fresh and dry weight of newly formed rhizomes were significantly greater in T6 followed by T3 and T1. The least number of days for 50% sprouting was observed in T2 followed by T6 and T1. In conclusion, soil:sand:*YaraMila* complex in 3:1:1 media is suitable to raise turmeric seedlings in grow bags. Continuation of the research over the entire nursery period and cost-benefit analysis are suggested prior to firm recommendation.

**Keywords:** Inorganic fertilizer, Organic fertilizer, Seed rhizomes, Sprouting